



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/620,615	07/17/2003	Hiroshi Oyama	116597	9663

25944 7590 03/20/2007
OLIFF & BERRIDGE, PLC
P.O. BOX 19928
ALEXANDRIA, VA 22320

EXAMINER

PRICE, NATHAN E

ART UNIT	PAPER NUMBER
----------	--------------

2194

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/20/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/620,615	Applicant(s) OYAMA ET AL.	
	Examiner Nathan Price	Art Unit 2194	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 December 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters; prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action is in response to communications received 13 December 2006. Claims 1 – 14 are pending. Previous objections and rejections not included in this Office Action have been withdrawn.

Response to Arguments

2. Applicant's arguments filed 13 December 2006 regarding claim objections have been fully considered but they are not persuasive.

3. Regarding the claim objections, the amendments do not fix the problem because the claims do not specify that the function names define functions to provide antecedent basis for "each function" in the claims.

4. Applicant's arguments with respect to claims 1 – 6 regarding rejections under 35 U.S.C. 102 and 103 have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

5. Claims 1 - 14 are objected to because of the following informalities: There is a lack of antecedent basis for "each function" (for example, in line 6 of claim 1). The

Art Unit: 2194

dependent claims inherit the deficiencies of independent claims. Appropriate correction is required.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. Claims 3, 8, 10 and 14 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 3, 8, 10 and 14 do not appear to produce a useful, concrete and tangible result. The result appears to be a definition, which is not considered to be a useful, concrete and tangible result.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1 – 5, 7 – 12 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schofield (US 6,308,225 B1) in view of Silberschatz (see PTO-892 with this Office Action).

8. As to claim 1, Schofield teaches an interface method for a logical circuit comprising a logical operation element, comprising:

defining an interface, using a first interface definition language which is partly common to a second interface definition language directed to a software object, wherein the first interface definition language has means for defining a function name, an argument, and a return value for each function defined by the function name [col. 2 lines 45 - 65; col. 3 lines 12 - 32, 54 - 65; col. 5 lines 6 - 13; col. 8 lines 12 - 22], and

providing at least means for inputting for identifying the function name defined by the first interface definition language for a server interface circuit in order to realize the interface among the means for inputting for identifying the function name defined by the first interface definition language, means for inputting and outputting the argument, and means for outputting the return value [col. 2 lines 45 - 65; col. 3 line 54 - col. 4 line 7; col. 8 lines 12 - 22].

9. Schofield fails to specifically teach defining a hardware interface. However, Silberschatz teaches a server process interacting with a device for a client process [page 470 ¶ 1 - 3]. This results in the server process acting as an interface to the hardware. It would have been obvious to one of ordinary skill in the art at the time Applicant's invention was made to combine these teachings because both teach use of client-server systems.

10. As to claim 2, see the rejection of claim 1 for limitations not included in this rejection. Schofield teaches providing at least means for outputting for identifying the function name defined by the first interface definition language for a client interface circuit in order to realize the interface among the means for outputting for identifying the function name defined by the first interface definition language, means for inputting and outputting the argument, and means for inputting the return value [col. 2 lines 45 - 65; col. 3 line 54 - col. 4 line 7; col. 8 lines 12 - 22].

11. As to claim 3, see the rejection of claims 1 and 2 for limitations not included in this rejection. Schofield teaches:

data can be transferred from the means for outputting for identifying the function name of the client logical circuit to the means for inputting for identifying the function name of the server logical circuit [col. 3 line 54 - col. 4 line 7],

the server logical circuit and the client logical circuit each having at least one of the means for outputting the return value and the means for inputting the return value, and data can be transferred from the means for outputting the return value to the means for inputting a return value [col. 2 lines 45 - 65; col. 3 line 54 - col. 4 line 7].

12. As to claims 4, 5, 7 and 9 – 12, see the rejection of claims 1 – 3.

Art Unit: 2194

13. As to claims 8 and 14, Schofield teaches the server logical circuit and the client logical circuit each having the means for inputting and outputting the argument and data can be transferred between the means for inputting and outputting the argument of the server logical circuit and means for inputting and outputting the argument of the client logical circuit [col. 2 lines 45 - 65; col. 3 line 54 - col. 4 line 7].

14. As to claims 6 and 13, Schofield modified by Silberschatz teaches:

the client interface circuit has a connection terminal and a register
[Silberschatz: page 405 ¶ 2],

the connection terminal of the client interface is connected to the server interface circuit or a system bus [Schofield: Fig. 1; col. 5 lines 14 – 23], and

when the connection terminal of the client interface is connected to the server interface circuit, the device connected with the server interface circuit is drivable via the server interface circuit [Schofield: Fig. 1; col. 3 line 66 – col. 4 line 7; col. 5 lines 14 – 23], and

when the connection terminal of the client interface is connected to the system bus, a value of the register within the client interface can be read via a central processing device such that the central processing device can serve in the place of the device connected with the server interface circuit [Schofield: Fig. 1; col. 3 line 66 – col. 4 line 7; col. 5 lines 14 – 23] [Silberschatz: page 402 ¶ 6; page 405 ¶ 2].

Art Unit: 2194

Conclusion

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan Price whose telephone number is (571) 272-4196. The examiner can normally be reached on 6:30am - 3:00pm, Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Thomson can be reached on (571) 272-3718. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

WEI ZHEN
SUPERVISORY PATENT EXAMINER

NP

